

21 A³ (h) trimming said sheet of plastic material along said ridge where said plastic material
22 is substantially weakened to release said article from said sheet.

REMARKS

1. Claims 1-13 were originally in the application. Claims 5-10 were withdrawn from consideration by the Examiner. Claim 14 was added by amendment. Claims 1-4 and 11-14 are pending.

2. In the Office Action claims 1-4 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claim 1, line 6 has been amended such that the first occurrence of the term — said mold — is now — a mold —.

3. In the Office Action claims 1, 2, and 4 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yon (USPN 337,664). Claim 1 has been amended to require cutting the plastic material to release the article after the sheet after the sheet has been removed from the mold. Yon discloses trimming the part before removal from the mold and the drawings of Yon are inconsistent with any other approach. Thus, yon discloses trimming as part of the primary operation, while the present invention discloses providing a detail in the plastic sheet to facilitate trimming in a secondary operation. This distinction is not trivial.

When vacuum forming and pressure forming large parts, trimming is virtually always performed as a secondary operation, traditionally with a horizontal band saw or a router. Parts formed in accordance with the present invention can typically be trimmed with a knife, yet the edge is at least as good as a part trimmed with conventional methods. Thus, the present inventive method is distinct from the method disclosed by Yon and, in fact, Yon does not disclose any feature which would facilitate trimming as a secondary operation. Since virtually all large parts which are molded from sheet goods are in fact trimmed in a secondary operation, Yon does not disclose anything useful towards facilitating this operation.

Applicant submits that claim 1 is therefore in condition for allowance. Claims 2 and 4 depend from claim 1 and, at least for the reasons stated with regard to claim 1, are likewise in condition for allowance. Reexamination and allowance of claims 1, 2, and 4 is respectfully requested.

4. In the Office Action claims 11-12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yon. Claim 11 has been amended to include the step of removing the article from the mold before cutting the plastic material along the ridge. Thus, as stated above with regard to claim 1, the cutting must occur as a secondary operation. Yon does not disclose any feature which would facilitate trimming as a secondary operation, which of course, is the way in which large, vacuum formed parts, are typically manufactured.

Applicant submits that claim 11 is therefor in condition for allowance. Claim 12 depends from claim 11 and, at least for the reasons stated with regard to claim 11, is likewise in condition for allowance. Reexamination and allowance of claims 11 and 12 is respectfully requested.

5. In the Office Action claims 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yon. Yon does not disclose forming a ridge to facilitate cutting in a secondary operation, as required by claim 1 from which claim 3 depends. While steel molds may be well known in the art, any detail to form a peripheral ridge is generally formed in the mold itself, not formed over a separate steel rule. The use of a separate steel rule to form the ridge decreases the complexity of the mold, allows the ridge to be set at a prescribed distance from the edge of the mold, and substantially weakens the material at the ridge to facilitate cutting.

Regardless, claim 3 depends from claim 1 and, at least for the reasons stated with regard to claim 1, is likewise in condition for allowance. Reconsideration and allowance of claim 3 is respectfully requested.

6. In the Office Action claim 13 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yon. Claim 13 depends from claim 11 and, at least for the reasons stated with regard to claim 11, is likewise in condition for allowance. Reconsideration and allowance of claim 13 is respectfully requested.

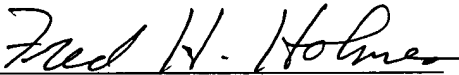
7. A petition for extension of time and fee are enclosed. However, if any additional fee is made payable by the filing of this paper, please consider this our authorization to charge the deposit account of the undersigned, Deposit Account No. 06-0540.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

The claims have been amended as follows:

- 1 1. (Amended) A method for making a molded article, wherein said article includes a
2 substantially vertical peripheral wall portion and a transverse outer edge portion, comprising:
 - 3 (a) heating a sheet of plastic material having a mold side and an exposed side to a first
4 temperature, said first temperature being consistent with forming said sheet
5 of plastic material in a thermoforming process;
 - 6 (b) placing said mold side of said sheet of plastic material over a mold, said mold having
7 a first surface for forming said substantially vertical peripheral wall portion
8 and further having a second surface substantially perpendicular to said first
9 surface for forming said outer edge portion;
 - 10 (c) applying a vacuum to said mold or compressed gas to said exposed side of said sheet
11 of plastic material such that air pressure on said mold side is less than the air
12 pressure on said exposed side;
 - 13 (d) forming a ridge along at least a part of said outer edge portion, said ridge being of a
14 substantially uniform height;

- 15 (e) cooling said sheet of plastic material to a second temperature, said second
16 temperature being consistent with said sheet of plastic material retaining its
17 molded shape;
- 18 (f) releasing said vacuum from said mold or said compressed gas from said exposed
19 side;
- 20 (g) removing said sheet of plastic material from said mold; and
- 21 (h) after removing said sheet of plastic material from said mold, cutting said sheet of
22 plastic material along said ridge to release said article from said sheet.

1 5. (Canceled) [An article made according to the method of claim 1.]

1 6. (Canceled) [An apparatus for thermoforming a molded article, wherein said article
2 includes a substantially vertical peripheral wall portion and a transverse outer edge portion,
3 comprising:
4 a mold having a first surface for forming said substantially vertical peripheral wall portion
5 and further having a second surface substantially perpendicular to said first surface
6 for forming said outer edge portion; and
7 means on said mold for forming a ridge along at least a part of said outer edge portion, said
8 ridge being of a substantially uniform height.]

1 7. (Canceled) [The apparatus according to claim 6, wherein said mold is a male mold.]

1 8. (Canceled) [The apparatus according to claim 7, wherein said means for forming said
2 ridge comprises a steel rule.]

1 9. (Canceled) [The apparatus according to claim 8, wherein said steel rule encompasses
2 substantially all of said perimeter of said mold.]

1 10. (Canceled) [The apparatus according to claim 6, wherein said mold includes
2 passageways for the passage of air.]

1 11. A method for making a molded article, wherein said article includes an outer edge
2 portion, comprising:

3 (a) molding an article having an outer edge portion from a sheet of plastic material in a
4 mold, said outer edge portion having a ridge along at least a part of said outer
5 edge portion, said ridge being of a substantially uniform height; [and]

6 (b) removing said article from said mold; and

7 (c) after removing said article from said mold, cutting said article along said ridge to
8 release said article from said sheet of plastic material such that said ridge
9 defines the outer edge of said article.

1 14. (New) A method for making a molded article from a sheet of thrmforming plastic,
2 wherein said article includes a continuous outer edge portion, comprising:

3 (a) heating a sheet of plastic material having a mold side and an exposed side to a first
4 temperature, said first temperature being consistent with forming said sheet of plastic
5 material in a thermoforming process;

6 (b) placing said mold side of said sheet of plastic material over a mold, said mold having
7 a steel rule of substantially uniform height positioned about the periphery of said
8 mold;

9 (c) applying a vacuum to said mold or compressed gas to said exposed side of said sheet
10 of plastic material such that air pressure on said mold side is less than the air pressure
11 on said exposed side;

12 (d) forming a ridge over said steel rule along the entirety of said outer edge portion such
13 that said plastic material is substantially weakened along said ridge to facilitate a
14 trimming operation;

- 15 (e) cooling said sheet of plastic material to a second temperature, said second
16 temperature being consistent with said sheet of plastic material retaining its molded
17 shape;
18 (f) releasing said vacuum from said mold or said compressed gas from said exposed
19 side;
20 (g) removing said sheet of plastic material from said mold; and
21 (h) trimming said sheet of plastic material along said ridge where said plastic material
22 is substantially weakened to release said article from said sheet.